



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,571	02/06/2004	Martin E. Thiede	1088.154US02	3554
24113 7590 05/11/2009 PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A. 4800 IDS CENTER 80 SOUTH 8TH STREET MINNEAPOLIS, MN 55402-2100				
EXAMINER				
KWIKXTNSKL RYAND				
ART UNIT		PAPER NUMBER		
3635				
MAIL DATE		DELIVERY MODE		
05/11/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/773,571

**Applicant(s)**

THIEDE, MARTIN E.

**Examiner**

RYAN D. KWIECINSKI

**Art Unit**

3635

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 13-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-2, 6, 8, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,676,036 to Bessert in view of US 3,180,460 to Liskey Jr.**

#### **Claim 1:**

Bessert discloses a modular floor comprising:

a first main beam (26, Fig.3) having a substantially horizontal top wall (the wall from which 262 a,b,c are formed atop), the top wall presenting an integral attachment structure (the prongs of 26) extending above the top wall, the attachment structure including spaced-apart first and second rail sections (262 a, 262c), the first and second rail sections being substantially parallel (Fig.3);

a first cross beam (beam 26 that is perpendicular the first beam 26, Fig.2)

a first ground-engaging leg (17) operably supporting the first main beam; and

a floor panel (29), the floor board presenting top and bottom surfaces (top surface and bottom surface of 29).

Bessert does not disclose the first floor end beam being disposed on the bottom surface of the floor board and being couplable to an adapter, the adapter being

structured to conformingly bear upon the first and second rail sections in slidable relation in a direction substantially parallel to the first and second rail sections such that the floor panel is supported by the first main beam.

Liskey Jr. discloses the floor panel including a first floor end beam (25 located at the end of the floor panel, Fig.1; left beam in Fig.4) coupled to a floor board (F) the first floor end beam being disposed on the bottom surface of the floor board and being couplable to an adapter (31), the adapter being structured to conformingly bear upon the first and second rail sections (the adaptor has a lower lip, like that of Bessert) in slidable relation in a direction substantially parallel to the first and second rail sections such that the floor panel is supported by the first main beam (fits slidingly on the main beam in Fig.2).

The recitation "operably attachable to and supportable by the first main beams" is considered a capability of the cross beam and the cross beam of Bessert is capable of being attached to the first main beam of Bessert.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the floor panel with end beams and adaptors in order to strengthen the floor panel to allow the panel to hold a larger load and also to allow the floor panel to fit snugly with the attachment structure of the modular floor frame.

**Claim 2:**

Bessert in view of Liskey discloses the modular floor of claim 1, Bessert discloses wherein each of the first and second rail sections presents a convex upper surface (rounded edges of the prongs of the attachment structure, Fig.2).

**Claim 6.**

Bessert in view of Liskey discloses the modular floor of claim 1, Bessert discloses wherein first main beam includes a bottom wall (264a, 264b, Fig.3) and a support (280b), the support being attached couplable to the bottom wall.

**Claim 8.**

Bessert in view of Liskey discloses the modular floor of claim 1, Bessert also discloses wherein the floor panel has a second floor end beam (beam to the right, Fig.4) and a floor side beam (beam in the middle, Fig.4), the second floor end beam being couplable to the floor board on the bottom surface, the floor side beam being positionable intermediate (between left and right end beams, Fig.4) the first and second floor end beams.

**Claim 9.**

Bessert in view of Liskey discloses the modular floor of claim 1, Bessert discloses further comprising a locking mechanism (36a, Fig.3) couplable to the first main beam, the locking mechanism being releasably attachable to the floor board.

**Claim 10.**

Bessert in view of Liskey discloses the modular floor of claim 9, Bessert discloses wherein the first and second rail portions present surfaces defining a channel (2672a, 262b, 262c), the locking mechanism being adapted to engage (recitation of capability, the recitation does not add further structure to the claimed subject matter since the recitation is a capability of the locking mechanism, the mechanism of Bessert is capable of engage all of the surfaces of the attachment portion) the surfaces of the channel.

Liskey discloses attachment structures with threaded surfaces (Fig.5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the channels of Bessert with threaded surfaces in order to more securely grip the locking mechanism of Bessert. The locking mechanism will engage with the channel structures forming a secure but removable lock.

**Claim 11.**

Bessert in view of Liskey discloses the modular floor of claim 9, Bessert discloses wherein the locking mechanism is operable from the top surface of the floor board, the locking mechanism being couplable to the floor board (Fig.3).

**Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,676,036 to Bessert in view of US 3,180,460 to Liskey Jr. in view of US 4,503,651 to Pugh.**

**Claim 3.**

Bessert in view of Liskey discloses the modular floor of claim 1, but does not disclose wherein the first main beam has a first end and a second end, a bolt being insertable into the first main beam proximal the first end, the second end having a locking mechanism.

Pugh discloses wherein the first main beam has a first end (end of 22) and a second end (end of 14; it would be obvious of using connections for adjacent members to have a locking mechanism on one end and a catch on the other end), a bolt (12, Fig.1) being insertable into the first main beam proximal the first end, the second end having a locking mechanism (The locking mechanism on the left, Fig.1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the end connections of the main beams with a bolt and lock connection in order to reduce assembly time of the modular floor of Bessert. The bolt and lock connection also eliminates the need for tools during the assembly process and creates a sturdy, easy to assembly connection for the beams of the floor.

**Claim 4.**

Bessert in view of Liskey in view of Pugh discloses the modular floor of claim 3, Pugh also discloses wherein the locking mechanism defines a recess (28) adapted to receive the bolt and a locking tooth assembly (26), the locking tooth assembly being movable between a locking position and an unlocking position, (on hinge 24) the bolt being retainable in the recess when the locking tooth assembly is in the locking position (Fig.2).

**Claims 5, 7, 15-16, and 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,676,036 to Bessert in view of US 3,180,460 to Liskey Jr. in view of US 6,871,454 B2 to Coday Sr. et al.**

**Claim 5.**

Bessert in view of Liskey discloses the modular floor of claim I, but does not disclose wherein the first main beam has a side wall including an extension, the extension being adapted to receive a portion of an attachment bracket, the cross beam being couplable to the first main beam with the attachment bracket.

Coday Sr. disclose wherein the first main beam has a side wall including an extension (202, Fig.11), the extension being adapted to receive a portion of an attachment bracket (230, Fig.1), the cross beam being couplable to the first main beam with the attachment bracket (36, Fig.1).



It would have been obvious to one of ordinary skill in the art at the time the invention was made to have attached the cross beams to the main beams in order to ensure the main beams remain in the correct position. The cross beams will prevent the main beams from bending in the horizontal plane as well as add strength to the structure.

**Claim 7.**

Bessert in view of Liskey discloses the modular floor of claim 1, wherein the first cross beam (34, Fig.1) includes a main section (224) and first and second end sections (230,232), the first end section being couplable to the main section opposite the second end section (Fig.,1).

**Claim 15.**

Bessert discloses method of assembling a modular floor having first and second main beams (parallel beams, Fig.2), a first cross beam (beam perpendicular to the two main beams, Fig.1) a plurality of ground-engaging legs (17, Fig.2), and a floor panel (12), the method comprising:

operably supporting the first and second main beams with the plurality of ground-engaging legs (17, Fig.2), each of the first and second main beams having a substantially horizontal top wall (wall of 26 in which attachments rise from, Fig.3), the top wall presenting an integral attachment structure (262a, 262b, 262c) extending above

the top wall, the attachment structure including spaced-apart first and second rail sections (262a, 262b, 262c), the first and second rail sections being substantially parallel (Fig.3);

operably attaching the first cross beam (Fig.2).

Bessert does not disclose the floor panel including a first floor end beam coupled to a floor board and to an adapter, the floor board presenting top and bottom surfaces to the first and second main beams, the first cross beam being supported by the first and second main beams;

coupling the floor panel to the adapter;

positioning the adapter to conformingly bear upon the first and second rail sections to be slidable in a direction substantially parallel to the first and second rail sections such that the floor panel is supported by the first and second main beams.

Liskey Jr. discloses the floor panel including a first floor end beam (25 located at the end of the floor panel, Fig.1; left beam in Fig.4) coupled to a floor board (F) the first floor end beam being disposed on the bottom surface of the floor board and being couplable to an adapter (31);

coupling the floor panel to the adapter (Fig.1);

positioning the adapter to conformingly bear upon the first and second rail sections (the adaptor has a lower lip, like that of Bessert; fits slidingly on the main beam in Fig.2) to be slidable in a direction substantially parallel to the first and second rail sections such that the floor panel is supported by the first and second main beams (Fig.2).

Coday Sr. discloses attaching the cross beam (36, Fig.1) to the main beams (34, Fig.1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the floor panel with end beams and adaptors in order to strengthen the floor panel to allow the panel to hold a larger load and also to allow the floor panel to fit snugly with the attachment structure of the modular floor frame.

It also would have been obvious to have attached the cross beams to the main beams in order to ensure the main beams remain in the correct position. The cross beams will prevent the main beams from bending in the horizontal plane as well as add strength to the structure.

**Claim 16.**

Bessert in view of Liskey in view of Coday discloses the method of claim 15, Bessert discloses wherein each of the first and second parallel rail sections presents a convex upper surface (rounded edges of the prongs of the attachment structure, Fig.2).

**Claim 19.**

Bessert in view of Liskey in view of Coday discloses the method of claim 15, Coday discloses wherein each of the first and second main beams has a side wall including an extension (202, Fig.11), the cross beam being adapted for attachment to

the first and second main beams with an attachment bracket extension (230,232, Fig.1) being adapted to receive a portion of the attachment bracket.

**Claim 20.**

Bessert in view of Liskey in view of Coday discloses the method of claim 15, Bessert discloses further comprising coupling a support (280b, Fig.3) to a lower surface (bottom surface of the horizontal upper wall, Fig.3) of the first or second main beam.

**Claim 21.**

Bessert in view of Liskey in view of Coday discloses the method of claim 15, Coday discloses wherein the cross beam includes a main section (224, Fig.1) and first and second end sections (230, 232, Fig.1) , the method further comprising coupling the first and second end sections at opposite ends of the main section (Fig.1).

**Claim 22.**

Bessert in view of Liskey in view of Coday discloses the method of claim 15, Liskey discloses wherein the floor panel further includes a second floor end beam (beam to the right of Fig.4) and a floor side beam (beam in the middle of Fig.4), the method further comprising:

coupling the first and second floor end beams to a bottom surface of the floor board (Fig.4); and

coupling the floor side beam to the first and second floor end beams (Fig.4).

**Claim 23.**

Bessert in view of Liskey in view of Coday discloses the method of claim 15, Bessert discloses wherein the modular floor has a locking mechanism (36a, Fig.3), the method further comprising coupling the floor panel to the first or second main beam with the locking mechanism (Fig.3).

**Claim 24.**

Bessert in view of Liskey in view of Coday discloses the method of claim 23, Bessert discloses wherein the first and second rail portions present surfaces defining a channel (2672a, 262b, 262c) wherein the first and second rail portions present surfaces defining a channel, the method further comprising engaging the surfaces of the channel with the locking mechanism (Fig.3).

Liskey discloses attachment structures with threaded surfaces (Fig.5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the channels of Bessert with threaded surfaces in order to more securely grip the locking mechanism of Bessert. The locking mechanism will engage with the channel structures forming a secure but removable lock.

**Claim 25.**

Bessert in view of Liskey in view of Coday discloses the method of claim 23, Bessert discloses further comprising operably attaching the locking mechanism to the

floor panel, the locking mechanism being operable from the top surface of the floor panel (Fig.3).

**Claim 26.**

Bessert in view of Liskey in view of Coday discloses the method of claim 15, Bessert discloses further comprising attaching one of the plurality of ground-engaging legs to the first or second main beam (17, Fig.2).

**Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,676,036 to Bessert in view of US 3,180,460 to Liskey Jr. in view of US 2,479,962 to Paulson.**

**Claims 13-14:**

Bessert in view of Liskey discloses the modular floor of claim 1, but does not disclose a main beam stabilizer and a cross beam stabilizer extending from the main beam to the leg and the cross beam and the leg respectively.

Paulson discloses a main beam stabilizer (56, Fig.9) and a cross beam stabilizer (55, Fig.10) extending from the main beam to the leg and the cross beam and the leg.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the modular floor of Bessert with main beam and cross beam stabilizers in order to increase the structural strength of the completed

modular floor assembly. The stabilizers will reduce the movement from shear forces on the modular floor and will also keep the floor in its desired shape and form.

**Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,676,036 to Bessert in view of US 3,180,460 to Liskey Jr. in view of US 6,871,454 B2 to Coday Sr. et al. in view of US 4,503,651 to Pugh.**

**Claim 17.**

Bessert in view of Liskey in view of Coday discloses the method of claim 15, but does not disclose wherein each of the first and second main beams has a first end and a second end, the method further comprising inserting a bolt into each of the first and second main beams-proximal the first ends..

Pugh discloses wherein each of the first and second main beams has a first end (end of 22) and a second end (end of 14; it would be obvious of using connections for adjacent members to have a locking mechanism on one end and a catch on the other end), the method further comprising inserting a bolt into each of the first and second main beams-proximal the first ends (bolt 12, Fig.1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the end connections of the main beams with a bolt and lock connection in order to reduce assembly time of the modular floor of Bessert.

The bolt and lock connection also eliminates the need for tools during the assembly process and creates a sturdy, easy to assembly connection for the beams of the floor.

**Claim 18.**

Bessert in view of Liskey in view of Coday in view of Pugh discloses the method of claim 17, further comprising:

Pugh also discloses providing a locking mechanism defining a recess (28) adapted to receive the bolt;

mounting a locking tooth assembly (26) on the locking mechanism, the locking tooth assembly being movable (hinge 24) between a locking position and an unlocking position; and

retaining the bolt in the recess when the locking tooth assembly is in the locking position (Fig.2).

**Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,676,036 to Bessert in view of US 3,180,460 to Liskey Jr. in view of US 6,871,454 B2 to Coday Sr. et al. in view of US 2,479,962 to Paulson.**

**Claims 27-28.**



Bessert in view of Liskey in view of Coday disclose the method of claim 26, but does not disclose coupling a main beam stabilizer and a cross beam stabilizer extending from the main beam to the leg and the cross beam and the leg respectively.

Paulson discloses coupling a main beam stabilizer (56, Fig.9) and a cross beam stabilizer (55, Fig.10) extending from the main beam to the leg and the cross beam and the leg.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the modular floor of Bessert with main beam and cross beam stabilizers in order to increase the structural strength of the completed modular floor assembly. The stabilizers will reduce the movement from shear forces on the modular floor and will also keep the floor in its desired shape and form.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-11 and 13-28 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN D. KWIECINSKI whose telephone number is (571)272-5160. The examiner can normally be reached on Monday - Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571)272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot, Jr./  
Supervisory Patent Examiner, Art Unit 3635

RDK

/Ryan D Kwiecinski/  
Examiner, Art Unit 3635